Sub-Saharan Africa is entangled in a wide array of problems which seem difficult, sometimes impossible, to solve. One of the issues currently glaring the region is the recurrent risks and challenges faced by women generation in and generation out. Other parts of the world, mostly the developed countries, were in the same plight some decades ago. While those developed countries have managed to step out of the vicious circle of never-ending challenges facing women, sub-Saharan Africa could not. The concept of “gender equality” has got such a tight grip that in the midst of fighting gender inequality, many have failed to recognize that men and women have different needs, capacities and contributions that should actually be addressed differently. Poverty, the main fuel behind the ravaging problems in sub-Saharan Africa, is undeniably not gender neutral but if viewed with a gender lens, poverty reduction strategies can be far more efficient and effective.

Adopting a different approach to measuring poverty (instead of the traditional monetary poverty approach) is more desirable to determine poverty among women. It goes without any doubt that poverty for women is multidimensional, many women face deprivations in different dimensions of their well-being. The existing framework of addressing problems facing women is sectorial with each sector responsible for one aspect of well-being of the women. We seem to not notice that it is usually the same group of women that faces several problems at a time. The women deprived in health is usually also deprived in nutrition, water, sanitation, education as well as participation in decision making in the household. In this study, rather than using money, poverty of women will be measured using a multidimensional perspective.

This research also comes on time for the measurement of the target 1.2 of the Sustainable Development Goal (SDGs) 1 (as shown in Box 1) where there is the need to build a multidimensional poverty measurement for women based on national definitions of countries.

**Box 1: Components of Sustainable Development Goal 1**

<table>
<thead>
<tr>
<th>Sustainable Development Goal 1: End poverty in all its forms everywhere</th>
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<tbody>
<tr>
<td>1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day.</td>
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<tr>
<td>1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.</td>
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</table>
In this paper, multidimensional poverty for women will be studied using the country Rwanda as a case study. The Sustainable Development Goal 1, as shown above, emphasize the national definition of poverty for women. It is a fact that poverty for women is not manifested in the same way in all countries. Women poverty in Africa is very different from that Europe or Asia. Even within Africa, poverty are different for the different countries – example women poverty in Rwanda is very different from women poverty in Burundi. For this reason, this study contextualizes women poverty to one country and use dimensions and indicators that is specific to that country and best reflect the poverty status of the Rwandese woman.

Research Questions
The research questions of this study are:
1. What is multidimensional poverty for the Rwandese woman?
2. How to measure SDG 1.1.2 for women in Rwanda?
3. What are the characteristics of the multidimensionally poor women in Rwanda?
4. What are the criteria that can be used to target multidimensionally poor women in Rwanda?

The Multiple Overlapping Deprivation Analysis (MODA) methodology developed by De Neubourg et al (2012) will be used to measure multidimensional poverty for women in this study. MODA is a quantitative methodology developed by UNICEF research office in Florence to measure poverty among children. This methodology provides a comprehensive approach to the multidimensional aspects of poverty and deprivation. It encompasses a large set of tools used in multidimensional poverty and deprivation analyses, ranging from deprivation headcounts in each dimension of well-being via multiple deprivations overlap analysis to multidimensional deprivation ratios (in the literature often referred to as ‘indices’) and their decompositions. The Women Multiple Overlapping Deprivation Analysis (W-MODA) methodology will adopt a holistic definition of women well-being, concentrating on the access to various goods and services and the rights of the women which are crucial for their welfare. Along with monetary consumption-based approaches, it will provide a more comprehensive picture of the woman’s well-being. It recognises that a woman’s experience of deprivations is multi-faceted and interrelated, and that such multiple, overlapping deprivations are more likely to occur, and with greater adverse effects, in more socio-economically disadvantaged groups.

W-MODA emphasises that the well-being of a woman cannot be compartmentalized into sectors (e.g. health, sanitation, and education) and that the multiple aspects of women’s lives needs to be placed simultaneously at the centre of any deprivation analysis.

W-MODA has four main characteristics that may be distinguished from existing studies. First, MODA will concentrates on the woman as the unit of analysis, rather than the household. Women experience deprivations and poverty differently from men and since the existing methodologies calculates poverty at household level, it is difficult to make a difference between poverty amongst men and women.
Second, MODA enhances knowledge of compartmentalised or sector-by-sector approaches (e.g. nutrition, health and education) with an overlapping deprivation analysis. This analysis indicates which of the multiple facets of women poverty are experienced simultaneously and gives insight into the various levels of severity of deprivation. Third, MODA supports the focus on equity, because it allows to concentrate on highly deprived groups in the society, and to create profiles which assist in determining their geographical and social position. The deprivation overlaps and profiles reveal specific characteristics of deprived women and can help to point towards mechanisms for effective policy design. Fourth, MODA intends to analyse women deprivation by identifying deprived women from a multidimensional perspective. The MODA methodology is designed to be used in a specific country setting using recent and high quality survey data and making country specific choices on age groups, dimensions, indicators and thresholds. Besides country specific applications of the MODA methodology, it has also been used for cross-country comparison purposes.

**Research Plan**

The first step in doing the multidimensional poverty analysis is select a list of dimensions and indicators that are reflective of the situation of women poverty in the country. Demographics and Health Survey (DHS) datasets collected in 2014/15 by the National Institute of Statistics in Rwanda (NISR) will be used (data has been collected for 14,808 women and the sample is representative both at the country and province level). The databases have been studied and after consultation with local stakeholders in Rwanda\(^1\), the dimensions of well-being nutrition, health, education, access to water, sanitation, housing, information, domestic violence and family planning were retained in the study. Each dimension is measured by a set of indicators. An index is then build to measure women poverty. Using a threshold of being deprived in at least 3 dimensions to be considered as poor, preliminary findings shows that around 65% of the women in Rwanda are poor. An ordered probit model is then used to study the characteristics of the poor women. Different characteristics of the woman have been explored notably demographic, household and geographic characteristics. It is found that women with higher number of children, with stunted children, living in female headed households, having lower education level, living in rural areas and those living in the Southern and Western province experience higher level of poverty. Some further characteristics of the women will also be explored in order to better profile the poorest women. By profiling the most vulnerable women in Rwanda, effective targeting criteria based on those characteristics can be put in place to assist them.

\(^1\) The choice the dimensions and indicators that are reflective of deprivations amongst women has been done mostly by the Rwandese stakeholders namely some of the staff of the National Institute of Statistics in Rwanda (NISR) so that the poverty rates are calculated based on national definitions as required by the SDGs. It is also to be noted that the selection of the dimensions and indicators are mostly data driven.